

Amendments to the Claims

This listing of claims will replace all prior version, and listings, of claims in the application:

Listing of Claims:

1-56. (Canceled)

57. (Currently amended) A laser structure, comprising:

an active region;

a first electrical contact disposed on a first surface of said laser structure;

a second electrical contact, said active region being disposed between said first and second electrical contacts;

a first ~~current-blocking~~ oxidizable layer, said first ~~current-blocking~~ oxidizable layer being subject to physical change when exposed to a ~~preselected~~ an oxidizing agent;

means for selectively exposing a portion of said first ~~current-blocking~~ oxidizable layer to said ~~preselected~~ oxidizing agent;

a first unchanged region of said first ~~current-blocking~~ oxidizable layer surrounded by a first changed region of said first ~~current-blocking~~ oxidizable layer, said first unchanged region of said first ~~current-blocking~~ oxidizable layer being aligned with a preselected region of said active region, said first changed region being electrically insulative, said first unchanged region being electrically conductive;

wherein said means for selectively exposing includes at least one etched depression extending from said first surface of said laser structure into the body of said laser structure and through said first ~~current-blocking~~ oxidizable layer to expose a portion of said ~~current-blocking~~ oxidizable layer to said ~~preselected~~ oxidizing agent during manufacture of said laser structure.

58. (Previously presented) The laser structure of claim 57, wherein: said laser structure is a vertical cavity surface emitting laser.

59. (Currently amended) The laser structure of claim 57, further comprising:

a second ~~current-blocking~~ oxidizable layer, said second ~~current-blocking~~ oxidizable layer being subject to change when exposed to said ~~preselected~~ oxidizing agent;

means for selectively exposing a portion of said second ~~current-blocking~~ oxidizable layer to said ~~preselected~~ oxidizing agent;

a second unchanged region of said second ~~current-blocking~~ oxidizable layer surrounded by a second changed region of said second ~~current-blocking~~ oxidizable layer, said second unchanged region of said second ~~current-blocking~~ oxidizable layer being aligned with said ~~preselected~~ region of said active region, said second changed region being electrically insulative, said second unchanged region being electrically conductive, said first and second unchanged regions being aligned with each other to define a current channel extending through said ~~preselected~~ region of said active region; and

said means for selectively exposing a portion of said second ~~current-blocking~~ oxidizable layer further comprises at least one etched depression extending from said first surface of said laser into the body of said laser structure and through said second ~~current-blocking~~ oxidizable layer to expose a portion of said second ~~current-blocking~~ oxidizable layer to said ~~preselected~~ oxidizing agent during manufacture of said laser structure.

60. (Currently amended) The laser structure of claim 57, wherein: said laser structure comprises a substrate portion, a lasing portion disposed on said substrate portion, a contact support portion disposed on said substrate portion, and a bridging portion disposed on said substrate portion, said bridging portion connected between said lasing portion and said contact support portion, said first ~~current-blocking~~ oxidizable layer being exposed at a surface of said lasing portion.

61. (Currently amended) The laser structure of claim 59, wherein: said laser structure comprises a substrate portion, a lasing portion disposed on said substrate portion, a contact support portion disposed on said substrate portion, and a bridging portion disposed on said substrate portion, said bridging portion connected between said lasing portion and said contact support portion, said first and second ~~current-blocking~~ oxidizable layers being exposed at a surface of said lasing portion.

62. (Currently amended) The laser structure of claim 57, wherein: ~~said preselected agent is an oxidizing agent and~~ said physical change is oxidation.

63. (Previously presented) The laser structure of claim 62, wherein: said oxidizing agent is water vapor.

64. (Canceled)

65. (Canceled)

66. (Currently amended) The laser structure of claim 57, wherein said means for selectively exposing further comprises: four etched depressions extending from said first surface of said laser structure into the body of said laser structure and through said first ~~current-blocking~~ oxidizable layer to expose a plurality of portions of said ~~current-blocking~~ oxidizable layer to said ~~preselected~~ oxidizing agent during manufacture of said laser structure.

67. (Previously presented) The laser structure of claim 57, further comprising:
an first mirror structure comprising a first plurality of layers;
a second mirror structure comprising a second plurality of layers, said active region being disposed between said first and second mirror structures.

68. (Currently amended) The laser structure of claim 59, wherein: said means for selectively exposing a portion of said second ~~current-blocking~~ oxidizable layer further comprises four etched depressions extending from said first surface of said laser structure into the body of said laser structure and through said second ~~current-blocking~~ oxidizable layer to expose a plurality of portions of said second ~~current-blocking~~ oxidizable layer to said ~~preselected~~ oxidizing agent during manufacture of said laser structure.

69. (Currently amended) A laser structure, comprising:
an active region;
a first electrical contact disposed on a first surface of said laser structure;

a second electrical contact, said active region being disposed between said first and second electrical contacts, said laser structure being a vertical cavity surface emitting laser;

a first ~~current-blocking~~ oxidizable layer, said first ~~current-blocking~~ oxidizable layer being subject to oxidation when exposed to an oxidizing agent;

a second ~~current-blocking~~ oxidizable layer, said second ~~current-blocking~~ oxidizable layer being subject to oxidation when exposed to said oxidizing agent;

first means for selectively exposing a portion of said first ~~current-blocking~~ oxidizable layer to said oxidizing agent;

a first nonoxidizable region of said first ~~current-blocking~~ oxidizable layer surrounded by a first oxidizable region of said first ~~current-blocking~~ oxidizable layer, said first nonoxidizable region of said first ~~current-blocking~~ oxidizable layer being aligned with a preselected region of said active region, said first oxidizable region being electrically insulative, said first nonoxidizable region being electrically conductive;

second means for selectively exposing a portion of said second ~~current-blocking~~ oxidizable layer to said oxidizing agent;

second nonoxidizable region of said second ~~current-blocking~~ oxidizable layer surrounded by a second oxidizable region of said second ~~current-blocking~~ oxidizable layer, said second nonoxidizing region of said second ~~current-blocking~~ oxidizable layer being aligned with said preselected region of said active region, said second oxidizable region being electrically insulative, said second nonoxidizable region being electrically conductive, said first and second nonoxidizable regions being aligned with each other to define a current channel extending through said preselected region of said active region; and

wherein said first means for selectively exposing and said second means for selectively exposing include at least one etched depression extending from said first surface of said laser structure into the body of said laser structure and through said first and second ~~current-blocking~~ oxidizable layers to expose a portion of said first and second ~~current-blocking~~ oxidizable layers to said ~~preselected~~ oxidizing agent during manufacture of said laser structure.

70. (Currently amended) The laser structure of claim 69, wherein: said laser structure comprises a substrate portion, a lasing portion disposed on said substrate portion, a contact

support portion disposed on said substrate portion, and a bridging portion disposed on said substrate portion, said bridging portion connected between said lasing portion and said contact support portion, said first and second ~~current-blocking~~ oxidizable layers being exposed at a surface of said lasing portion.

71. (Currently amended) The laser structure of claim 70, wherein: said first and second ~~current-blocking~~ oxidizable layers comprise an aluminum bearing material.

72. (Previously presented) The laser structure of claim 70, wherein: said oxidizing agent is water vapor.

73. (Currently amended) The laser structure of claim 69, wherein: said first and second means for selectively exposing further include four etched depressions extending from said first surface of said laser structure into the body of said laser structure and through said first and second ~~current-blocking~~ oxidizable layers to expose a plurality of portions of said ~~current blocking~~ oxidizable layers to said ~~preselected~~ oxidizing agent during manufacture of said laser structure.

74. (Currently amended) A laser structure, comprising:

- an active region;
- a first electrical contact disposed on a first surface of said laser structure;
- a second electrical contact, said active region being disposed between said first and second electrical contacts, said laser structure being a vertical cavity surface emitting laser;
- a first ~~current-blocking~~ oxidizable layer, said first ~~current-blocking~~ oxidizable layer being subject to oxidation when exposed to an oxidizing agent;
- a second ~~current-blocking~~ oxidizable layer, said second ~~current-blocking~~ oxidizable layer being subject to oxidation when exposed to said oxidizing agent;
- first means for selectively exposing a portion of said first ~~current-blocking~~ oxidizable layer to said oxidizing agent;
- a first nonoxidizable region of said first ~~current-blocking~~

layer surrounded by a first oxidizable region of said first ~~current-blocking~~ oxidizable layer, said first nonoxidizable region of said first ~~current-blocking~~ oxidizable layer being aligned with a preselected region of said active region, said first oxidizable region being electrically insulative, said first nonoxidizable region being electrically conductive;

second means for selectively exposing a portion of said second ~~current-blocking~~ oxidizable layer to said oxidizing agent;

a second nonoxidizable region of said second ~~current-blocking~~ oxidizable layer surrounded by a second oxidizable region of said second ~~current-blocking~~ oxidizable layer, said second nonoxidizable region of said second ~~current-blocking~~ oxidizable layer being aligned with said preselected region of said active region, said second oxidizable region being electrically insulative, said second nonoxidizable region being electrically conductive, said first and second nonoxidizable regions being aligned with each other to define a current channel extending through said preselected region of said active region; and

wherein said first and second means for selectively exposing further comprise at least one etched depression extending from said first surfaces of said laser structure into the body of said laser structure and through said first and second ~~current-blocking~~ oxidizable layers to expose a portion of said ~~current-blocking~~ oxidizable layers to said ~~preselected~~ oxidizing agent during manufacture of said laser structure.

75. (Currently amended) The laser structure of claim 74, wherein: said laser structure comprises a substrate portion, a lasing portion disposed on said substrate portion, a contact support portion disposed on said substrate portion, and a bridging portion disposed on said substrate portion, said bridging portion connected between said lasing portion and said contact support portion, said first and second ~~current-blocking~~ oxidizable layers being exposed at a surface of said lasing portion, said first and second ~~current-blocking~~ oxidizable layers comprise an aluminum bearing material, said oxidizing agent being water vapor.

76. (Currently amended) The laser structure of claim 74, further comprising:

a plurality of etched depressions extending from said first surface of said laser structure into the body of said laser structure and through said first ~~current-blocking~~ oxidizable layer to

expose a plurality of portions of said ~~current blocking~~ oxidizable layer to said oxidizing agent during manufacture of said laser structure.

77. (Currently amended) The laser structure of claim 74, wherein: the first and second means for exposing further include four etched depressions extending from said first surface of said laser structure into the body of said laser structure and through said first and second ~~current blocking~~ oxidizable layers to expose a plurality of portions of said ~~current blocking~~ oxidizable layers to said ~~preselected~~ oxidizing agent during manufacture of said laser structure.